# LESLIE COUNTY

# (Leslie County Water Service Area Map)

- Estimated 1999 population of 13,400--40% on public water
- Estimated 2020 population of 12,800--71% on public water
- 103 miles of water lines, with plans for 150 additional miles
- Estimated funding needs for public water 2000-2005--\$6,350,000
- Estimated funding needs for public water 2006-2020--\$10,000,000

Leslie County had an estimated population of 13,390 (4,900 households) in 1999 with a projected population of 12,800 (5,500 households) in 2020. Public water is provided to about 40 percent of the county's residents. In areas of the county not served by public water, about 91 percent of the households rely on private domestic wells and the remaining households rely on other sources. About 1,700 customers will be added to public water service through new line extensions in 2000-2020.

In order to serve the entire county, an additional source of water is needed. There are no known large sources of underground water in the county, so the best potential source would be Buckhorn Lake. A treatment plant located on the lake could also serve several surrounding counties as either a primary or secondary source.

## Estimated Costs - Proposed Projects, 2000-2005

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	In \$1000	in \$1000	in \$1000	in \$1000	in \$1000
LESLIE								,
Hyden-Leslie Water District	86.2	1,176	4,600	250		1,000	500	6,350
Total	86.2	1,176	4,600	250		1,000	500	6,350

## Estimated Costs - Proposed Projects, 2006-2020

COUNTY/System		New		Rehab	Source	Treatment	Tanks/	Total
		Customers					Pumps	
	Miles	Number	Cost in \$1000	in \$1000				
LESLIE								,
Hyden-Leslie Water District	61.0	518	2,400		3,000	4,000	600	10,000
Total	61.0	518	2,400		3,000	4,000	600	10,000

## PUBLIC WATER SYSTEMS

The Hyden–Leslie Water District is the only community service provider in the county: there are also 3 non-community water systems in the county

# WATER SERVICE AREAS LESLIE COUNTY Kentucky

# Prepared By: Water Resource Development Commission

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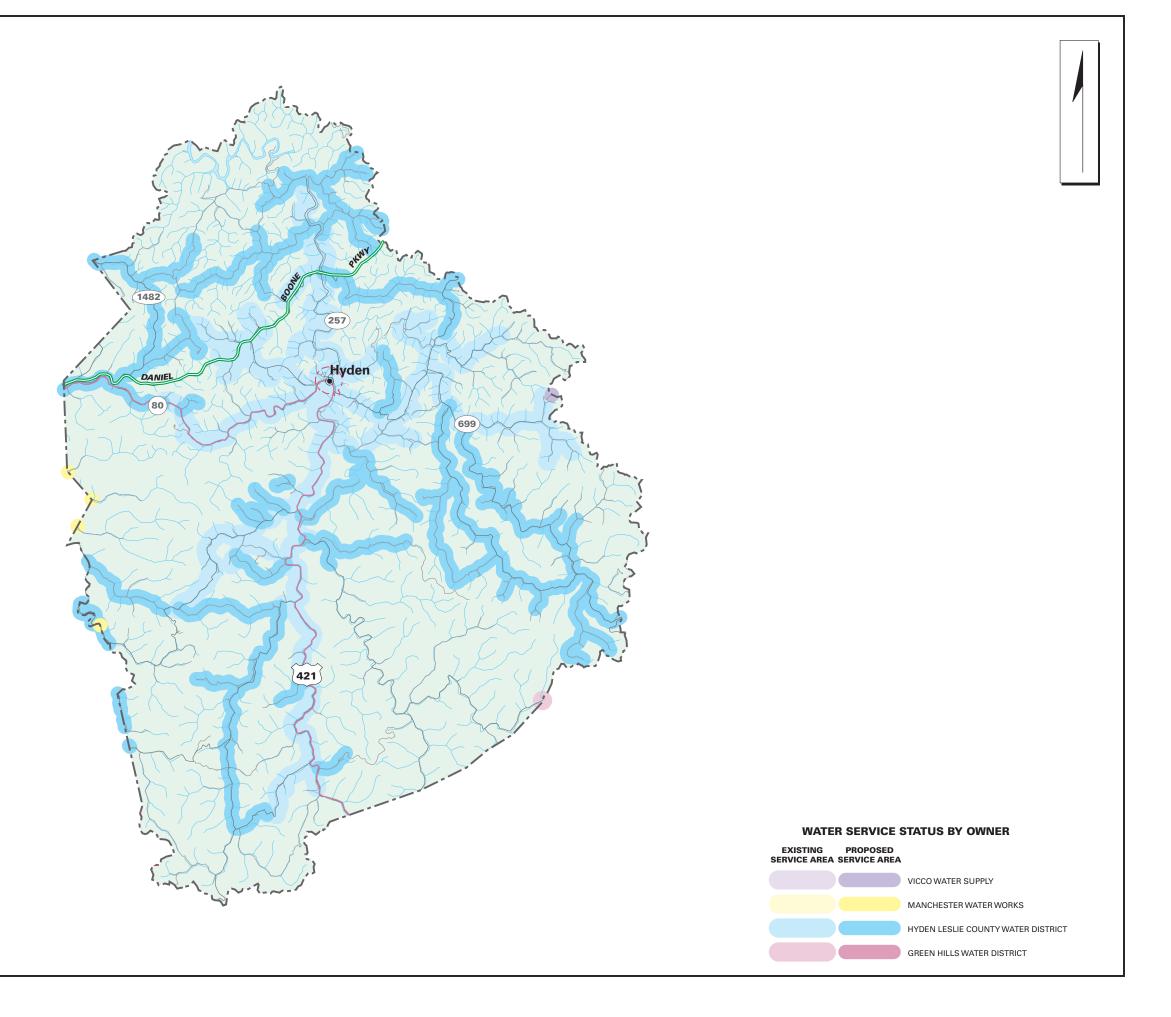








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#### **HYDEN LESLIE COUNTY WATER DISTRICT**

PWSID:	
System Type:	COMMUNITY
Owner Type:	WATER DISTRICT
Surface Source:MIDI	DLE FORK KENTUCKY RIVER
Purchase Source:	
Well Source:	
Sells Water to:	
Treatment Plant Capacity (MGD):	0.79
Percent Daily Average Production:	91.00
Total Tank Storage Capacity (gallons):	930,000.00
Total Service Connections:	2,053.00
Number of Employees:	
Treatment Operator Class:	2D
Distribution Operator Class:	3A
Customer Rate for 1,000 Gallons:	9.65
O/M costs 1997:	
O/M costs per Service Connection:	
Net Revenue 1997:	Not available
Total Water Produced 1997 (gallons):	Not available
Water Sold 1997 (gallons):	
Unaccounted-for Water 1997 (%):	Not available

Hyden-Leslie draws its water from the Middle Fork of the Kentucky River. Current plant capacity is 790,000 gallons per day and average daily average production is about 700,000 gallons. Storage capacity is 934,000 gallons. Proposed line extensions also include plant and existing line upgrades along with increased storage capacities. Current water rates are \$17.30 for the first 2,000 gallons. There are 8 full time employees.

# OTHER SYSTEMS

# **HAYES LEWIS ELEMENTARY SCHOOL**

Hayes Lewis Elementary School is located in Leslie County. The system serves a population of 425 and has 1 service connection. The local, non-transient, non-community system has treatment capacity of 40,000 gallons per day and the water source is wells.

## **BIG CREEK ELEMENTARY SCHOOL**

Big Creek Elementary School is located in Leslie County. The system serves a population of 212 and has 1 service connection. The local, non-transient, non-community system has treatment capacity of 16,000 gallons per day and the water source is wells.

## SHAMROCK COAL CO/MIDDLE FORK

Shamrock Coal Co/Middle Fork is located in Leslie County. The system serves a population of 200 and has 1 service connection. The federal, non-transient, non-community system has treatment capacity of 18,000 gallons per day and the water source is wells

#### PRIVATE DOMESTIC SYSTEMS

About 8,100 people in Leslie County rely on private domestic water supplies: 7,400 on wells, and 700 on other sources.

Problems with existing private wells in Leslie County are various and scattered throughout the county. In certain areas there is a quantity problem while in other areas there is poor quality due to high concentrations of salt and various other minerals and metals.

Most wells drilled in valley bottoms are adequate for a domestic supply. In the northwestern half of the county fewer than half of the wells on hillsides and only some of the wells on hilltops are adequate for a domestic supply. In the southeastern half of the county about three-quarters of the wells drilled on hillsides are adequate for a domestic supply and some wells on hilltops or ridges meet the needs of a domestic supply. Also in the southeastern half of the county wells deeper than 200 feet in valleys may yield enough water for small municipal or industrial supply.

A few springs supply sufficient quantities of water for domestic use. Almost all ground water obtained from drilled wells in this area is moderately to extremely hard and contains noticeable amounts of iron. Salty water may be found in wells drilled less than 100 feet below the level of the principal valley bottoms, except in the south-eastern half of the county where salty water probably will not be found less than 200 feet. Springs yield less than 5 gpm.